

**REMARKS**

Claims 1, 4-8, 11, 13-16, 18-22, 28-30, 36-44, 46, 48, 50-59, 61-66, 70-72, 74, 76-78, 83, 85, 88, 91-95, 98-100, 133-137, and 139 are pending. Claims 1, 4, 70 and 85 have been amended. Claim 139 has been cancelled. Applicants reserve the right to pursue the cancelled subject matter in a continuation or divisional application. No new matter has been added by way of the present amendment. Entry of the present amendments and consideration of the remarks below are respectfully requested.

**Sequence Listing**

Applicants have reviewed the text of Figure 24 and have noted the errors highlighted by the Office. An amended Figure 24 is submitted with this response which addresses the typographical errors therein. Applicants submit that the amended Figure 24 overcomes the objection raised by the Office.

**Claim Objection**

The Office objected to claim 139. Applicants have cancelled this claim. Thus, this objection is moot.

**Claim Rejection Under 35 U.S.C. § 112**

Claims 1, 4-8, 11, 13-16, 18-22, 28-30, 36-44, 46, 58, 50-59, 61-66, and 133-137 were rejected under 35 U.S.C. § 112 as allegedly failing to reasonably provide enablement for any method to modulate the expression of a target gene with a zinc finger protein capable of binding to any 18 nucleotides within the target gene.

Applicants respectfully disagree with the Office regarding the reasons for this rejection. Nevertheless, solely to advance prosecution of the present application, Applicants have amended the pending claims in accordance with the suggestions made by the Office in the Office Action mailed

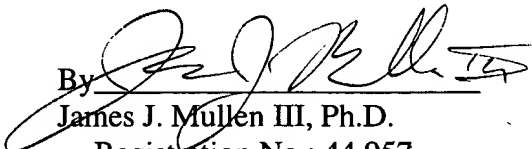
on September 10, 2004. These amendments overcome the issues raised by the Office regarding the pending claims by limiting these claims to target sequences of the formula (GNN)<sub>6</sub>, wherein N is any one of A, T, C or G.

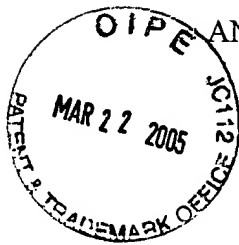
In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue. If it is determined that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number given below.

In the event the U.S. Patent and Trademark office determines that an extension and/or other relief is required, applicants petition for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 03-1952 referencing docket no. 278012001420. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Dated: March 22, 2005

Respectfully submitted,

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**Figure 24**  
**(Annotated Copy)**

(1) Sequence of promoter CsVMV (Example 1A) (SEQ ID NO:1):

tctagaaactagctccagaaggtattatccaagatgtagcatcaagaatccaatgtttacgggaaaaactatggaag  
tattatgtgagctcagcaagaagcagatcaatatgcggcacatatgcaacctatgtcaaaaatgaagaatgtacagatacaagat  
cctatactgccagaatacgaagaagaatacgtagaaattgaaaaagaagaaccaggcgaagaaaagaatcttgaagacgtaag  
cactgacgacaacaatgaaaagaagaagataaggtcgggtattgtgaaagagacatagaggacacatgtaaggtggaaaatgt  
aagggcggaaagtaacctatcacaaaggaatcttatccccactacttatccttttatattttccgtgtcattttgccccttgagtttc  
ctatataaggaaccaagttcggcatttgtgaaaacaagaaaaatttggtgtaagctattttcttgaagtactgaggatacaactca  
gagaaatttgaagtttga

Total ~~531~~ bp 532 bp

(2) Sequence of zinc finger protein 2C7 binding site (Example 1A) (SEQ ID NO:2):

GCG TGG GCG GCG TGG GCG

Total 18 bp.

(3) Sequence of promoter pc7rbTATA (Example 1A) (SEQ ID NO:3):

cccggtatataataagcttggcattccggtactgttggttaaagccacat

Total 51 bp.

(4) Sequence of pND3008 coding region (Example 1B) (SEQ ID NO:4):

agcgtgaccggctcgtgccccctcttagagataatgagcattgcatgtctaagttataaaaaattaccacatattttttg  
tcacactgtttgaagtgcagtttatctatctttatacatatatttaaactttactctacgaataataatctatagtactacaataatca  
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## ANNOTATED MARKED-UP DRAWING

cgcaagaggcatacaaaatccataccggtgagaagccctatgcttgcctgtcgagtcctcgatcgccgcttttctaagtcgg  
ctgatctgaagcgccatatccgcatccacacaggccagaagcccttccagtgtcgaatatgcatgcgtaacttcagtcgtagtga  
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Total:	3068 bp
ZmUbi promoter:	44 bp to 2026 bp
SID repression domain:	2066 bp to 2173 bp
Nuclear localization signal:	2174 bp to 2194 bp
Six finger ZFP2C7:	2207 bp to 2735 bp
HA epitope tag:	2762 bp to 2791 bp
Nos terminator:	2820 bp to 3112 bp

### (6) Sequence of 6X2C7 binding site (SEQ ID NO:6):

cgtgctagcgcgtgggcggcggtgggcgaacaagcgtgggcggcggtgggcgaacaagcgtgggcggcggtgggc  
gactagtgtagcgcgtgggcggcggtgggcgaacaagcgtgggcggcggtgggcgaacaagcgtgggcggcggtgggcgac  
tagtg

Total: ~~455 bp~~ 156 bp

### (7) Sequence of 3 finger protein C7 (SEQ ID NO:73):

atggcccaggcggccctcgagccctatgcttgcctgtcgagtcctcgatcgccgcttttctaagtcggctgatctga  
agcgccatatccgcatccacacaggccagaagcccttccagtgtcgaatatgcatgcgtaacttcagtcgtagtaccaccttac  
caccacatccgcacccacacaggcgagaagccctttgcctgtgacatttgtgggaggaagtttgcaggagtgaacgcaa  
gaggcatacaaaatccatttaagacagaaggactctagaactagtggccaggccggccaggctagc

Total: 314 bp

# ANNOTATED MARKED-UP DRAWING

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 tctatgttactagatccgggaattgggtac

Total:	<del>3120 bp</del> <u>3121 bp</u>
ZmUbi promoter:	44 bp to 2026 bp
Six finger ZFP2C7:	2060 bp. to 2588 bp
Nuclear localization signal:	2620 bp to 2641 bp